theory reached by the authors is that of simultaneous solfatarism and oxidation. It is supposed that the ascending waters carried, besides the heavy metals, hydrogen sulphide, carbon dioxide, and alkalies. The hydrogen sulphide was oxidized near the surface to sulphuric acid, which, descending, met more of the uprising currents and caused the deposition of the ores.

The age of the ore deposits is placed in the late Pliocene, and it is thought that they were formed at a depth of not more than 1,000 feet.

E. R. L.

The Vertebrata of the Oligocene of the Cypress Hills, Saskatchewan. By LAWRENCE M. LAMBE. Contributions to Canadian Paleontology, Vol. III, Part IV. Canada Department of Mines, Geological Survey Branch. 64 pages of text and 7 plates.

The Oligocene of the district, composed chiefly of conglomerate, forms the capping of an extensive area of uplands, and lies unconformably on the Laramie. The vertebrate fauna, which has been known from these beds since 1883, has been correlated with the Titanotherium beds at Pipestone Springs, Montana. The publication of the present paper raises the number of species known from these deposits from 25 to over 50. Of these, seven species are of fishes, seven of reptiles, and the remainder of mammals; of the mammals two-thirds of the species belong to the Ungulata.

E. R. L.

Report on Tertiary Plants of British Columbia Collected by Lawrence G. Lambe in 1906, together with a Discussion of Previously Recorded Tertiary Floras. By D. P. PENHALLOW, Canada Department of Mines, Geological Survey Branch.

The report presents a very full account of the distribution and stratigraphic significance of the Tertiary floras of British Columbia. The localities are described at which Tertiary plants have been found, with lists of fossils from each locality; then the individual species are discussed briefly, with mention of the localities in which they are found; and following this is a discussion of the evidence of the floras of the several localities with regard to the age of the deposits and their relationship to similar deposits in other regions. The entire Tertiary flora falls into two groups belonging to the Eocene and the Oligocene periods. The report is rather poorly illustrated by a few text figures.

E. R. L.